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REVIEW ARTICLE

A Systematic Literature Review on Happiness Measurement Frameworks Determinants and Policy Implications

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Abstract

There has been growing research into the subjective well-being (happiness) alongside Gross Domestic Product (GDP) as a result of academic and policymaker interest in looking beyond traditional economic indicators. In view of developing evidence based policies, a systematic review was carried out to explore theory of happiness, measurement frameworks employed for happiness and factors influencing happiness. All levels of peer-reviewed articles were included in the scope of this study to ensure that all literature related to measurement frameworks and determinants of happiness were reviewed. Furthermore, the review was conducted using PRISMA 2020 guidelines to assure rigorous methodology and reproducibility in the 57 peer-reviewed studies included in the analysis published between 2000-2025. With respect to the aim of the reviews, there were two primary objectives: First, the review was an attempt to delineate and critically evaluate the theoretical approaches to happiness measurement across the globe and differentiate between hedonic and eudaimonic understandings of well-being. Secondly, the review brought together empirical findings from the effects of socio-economic, psychological, and governance factors on happiness across various populations. Theoretical bases suggest that studies started with one dimensional satisfaction and progressed to integrated models which explain the psychological complexities of individuals. Issues noted with method include problematic validity of measures and cross cultural comparisons. The results from this systematic review support both hypotheses and provide useful information for developing policies focused on promoting well-being.

Keywords: Happiness index, Subjective wellbeing, Life satisfaction, Systematic review, PRISMA, Hedonic wellbeing, Eudaimonic wellbeing, Policy.

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1. Introduction

Over the last 20 years there has been a very significant shift in how we think about policy making and measuring economies. For nearly all of the 20th century the dominant view was that the best indicator of how well people were doing was their Gross Domestic Product (GDP) per person. However, this viewpoint is being replaced by a much more sophisticated understanding of what it means to be happy/alive/well-off. These new understandings recognize that living a good life includes many things other than just having enough money, including relationships, physical and mental health, and safety to name a few. This shift away from the traditional economics-based approach began to take place in the 1970s when Bhutan introduced its Gross National Happiness (GNH) concept, however it really gained momentum at the beginning of the 21st century. There are now various policy-making bodies around the world developing policies based on wellbeing/quality of life

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metrics. Examples include the UK's Office for National Statistics wellbeing program and Bhutan's constitutionally-mandated GNH indicators. Rather than simply providing insight into how well a society does economically, this shift is fundamentally changing how governments prioritize goals. That is, instead of focusing on "how" (e.g., the means), policymakers are now focused on "what" (the ends) that they want to see achieved. This systematic review aims to bridge these gaps by conducting a thorough analysis of happiness research published between 2000-2025. This time frame allows for an examination of how formally-developed happiness indicators matured over the decade along with an assessment of the proliferation of happiness research into the factors that determine wellbeing. A secondary objective of this review is to support theoretically- sound, transparently-methodologically-designed, and practically-relevant scholarship/policy development among varied audiences interested in happiness research. The first major objective is to conduct a systematic evaluation of theoretical frameworks and measurement tools used by researchers/institutions to define/harmonize happiness in international contexts over the study period [3], [8], [14]. While this will involve evaluating the philosophical underpinnings of competing definitions of wellbeing, it also involves examining the specific survey instruments, scaling techniques/methodologies, and aggregation methodologies used to transform abstract constructs into measurable/comparable quantities. The second major objective is to synthesize empirical research findings concerning socioeconomic-psychological-governance related predictors of happiness across country/sub-country contexts, with emphasis on the magnitude differences among each category of predictors and the context-specific moderators of their effects [2], [6], [52]. The investigation will utilize two hypotheses developed from theoretical assumptions supported by existing empirical research and specifying areas of ignorance identified through prior reviews. The first hypothesis posits that multi- dimensional happiness indexes encompassing both hedonic and eudaimonic aspects will exhibit greater predictive validity in explaining population wellbeing outcomes compared to uni-dimensional indexes such as GDP/capita alone [3], [21], [22]. This proposition is predicated upon theoretical suppositions that human flourishing consists of both experiential satisfaction and purposeful engagement, therefore, indexes quantifying both aspects should perform better than indexes capturing either one dimension or only material conditions or only subjective affect [8], [14], [37]. The second hypothesis posits that socioeconomic determinants—specifically income inequality, social trust, and government performance—will show stronger and more consistent associations with national happiness scores than indexes of absolute economic wealth such as GDP/capita [2], [6] [13]. This proposition relies on research demonstrating that relative position, interpersonal trust, and institutional quality contribute significantly to wellbeing assessments above and beyond the absolute level of resources available to a population, with particular relevance for policy makers seeking to develop strategies whereby economic growth translates into increases in happiness [15], [17], [53].

2. Literature Review

2.1. Conceptual foundations

The philosophic issues regarding what we measure and how to understand those measurements with regards to "happiness" are longstanding. Two philosophies of measurement of "happiness" that still hold today exist. One is hedonism, which is most closely linked to Jeremy Bentham's Utilitarianism philosophy. Bentham defines happiness as maximizing pleasure (or reducing pain) and views the goal of people's lives to be to create the greatest amount of overall happiness. Hedonistic philosophers assume that happiness can be quantified by asking individuals to report their happiness, and the quality of their feelings (affect). A hedonistic way of looking at happiness is one that focuses on the present/passive happiness and/or the immediate happiness, instead of the long term happiness. They also employ a great variety of self-reported questionnaires to evaluate people's happiness, including positive emotion, absence of negative emotion and life satisfaction. The second philosophy is called eudaimonia and was suggested by Aristotle. He felt that happiness in life is realized when a person reaches his full human potential. To achieve this, you need to develop certain traits that make up good character and engage in productive activities in society. Aristotle was not referring to a state of feeling good or to being highly satisfied when he talked about happiness. Rather he said happiness was doing something bigger and better than to please oneself. Both philosophies allow us to conceptualize happiness and measure it in various ways, but both have their drawbacks. For instance, hedonists are concerned with the present, and eudaimonics, with the future. Also, hedonics consider individual aspects of happiness and eudaimons considers happiness as part of a bigger picture. As mentioned above, there are significant differences between the definition and measurement of happiness, as given by hedonist and eudaimonist philosophers. So scientists have attempted to fill this in gap with new theories.

Psychologists Martin Seligman and Carol Ryff have made important contributions in the pursuit of linking hedonism and eudaimonism. Theories of happiness have been developed by both scientists. Seligman talks about a number of ways that people can be happy — Positive Emotions, Engagement, Relationship, Meaning, and Accomplishment. According to the PERMA Theory, people can be happy if they can work on each of the areas. However, some argue that the PERMA Theory still contains elements of hedonism because it emphasizes finding positive emotions. On the other hand, Ryff's Psychological Well-being Scales list six factors for developing well-being including Autonomy, Personal Growth, Self-Acceptance, Purpose in Life, Mastery over Environment, and Positive Relations with Others.

2.2. Global happiness indices

Measurement Frameworks and Validity In addition to a greater understanding of the intellectual sophistication of subjective wellbeing research, and growing interest in finding alternatives to traditional macroeconomic indicators (e.g., gross domestic product) to measure social progress, the recent explosion in the number of happiness indexes reflects increasing recognition of the need for new methods to

understand and assess individual and collective experiences of well-being. One of the more popular and widely recognized systems is the World Happiness Report, published annually since 2012 by the United Nations' Sustainable Development Solutions Network. It is based on a ranking system using subjective wellbeing data collected by Gallup. In this case, it uses the Cantril ladder method, where respondents are asked to rate their current life from 0 to 10, compared to how they perceive their lives could be at best and worst possible [47]. Although the World Happiness Report focuses on assessing overall global cognition regarding life satisfaction, it does so without asking people specific questions about particular aspects of their lives, nor do they ask them to provide information about their moods in real-time. As a result, it has been placed firmly within the Hedonic school of thought in measuring wellbeing. The authors of the World Happiness Reports have incorporated six predictor variables into their analytic model that were identified as significant predictors of the happiness of nations through regression analysis: GDP per capita, social support, healthy years lived, freedoms allowed when making decisions related to one's own life, charitable donations, and perceptions of corruption [47]. Collectively these variables account for approximately half of the variability in national happiness levels. Of all the independent variables included in the model, GDP per capita and social support appear to be strong predictors across different nation types [35]. The inclusion of these six variables represents an effort to go beyond pure economic explanations of wellbeing, yet include measurable indicators that allow comparisons among nations. Nevertheless, many researchers have criticized the World Happiness Reports for deriving their variable set through induction and not through explicit theory-based commitments. Thus, there is a concern that the variables chosen may reflect causal factors that contribute to wellbeing or simply co-vary with wellbeing for some reason or another [38]. In contrast to the World Happiness Reports, Bhutan's Gross National Happiness Index is a measurement tool designed specifically around two non-Western philosophical traditions – Eudaimonia/Buddhism. The Bhutanese government began developing its GNH Index in 1972. Although not fully operationalized until later, it includes nine dimensions: psychological wellbeing, physical health, quality and quantity of time spent, educational attainment, cultural diversity/resilience, effective governance, community vitality, environmental resilience/ecological diversity, and living standard. Each dimension has thirty-three (33) separate indicators used to measure it [31]. Unlike the World Happiness Report's focus on cognitive assessment of life satisfaction, the GNH Index attempts to capture multiple-dimensional flourishing through assessments of human development/social solidarity/conservation/good governance. Socioeconomic Determinants: Income, Inequality, and Employment A large body of research has examined the linkages between subjective wellbeing and socio-economic conditions, since Easterlin's observations in 1974 that above a certain minimum standard of living, increased per capita income did not lead to corresponding improvements in average happiness [50]. This paradoxical effect of income on wellbeing creates a serious problem for the idea that material wealth is a key factor in determining people's wellbeing. When cross-sections of populations are compared, there is a very clear association between the amount of money individuals earn and their reported levels of happiness. However, when national averages of happiness and income are tracked over long periods of time, it is found that rises in national average income are not followed by comparable increases in national average happiness. These findings suggest that how the relationship between income and happiness works at the individual level differs from how it works at the population or societal level [24]. Since Easterlin's initial study, researchers have added more detail and complexity to his findings.

Stevenson and Wolfers used data collected from a number of countries and longer time-series to show that the income-happiness relationship was stronger than previously demonstrated by Easterlin, such that reported happiness rose as rapidly as GDP in many different types of countries [36]. Nevertheless, several subsequent analyses using larger numbers of countries, along with more sophisticated statistical models, produced inconclusive results. Some research supported the original paradox, while other research showed that happiness increases with increases in GDP, provided the researchers controlled for various relevant aspects of their models [20]. Another factor identified in recent years as having a major influence on reported levels of wellbeing is income inequality, usually measured via the Gini-coefficient. Researchers such as Wilkinson and Pickett have shown that societies with higher levels of income inequality tend to have lower overall wellbeing levels, higher prevalence rates of mental illnesses, and less social cohesiveness across a wide variety of indices, including after accounting for each society's mean income levels [23]. There appear to be numerous possible ways that income inequality could reduce overall wellbeing including relative deprivation effects, status anxiety, reduced opportunities for upward mobility, and the undermining of the social conditions needed for flourishing [49].

In addition to influencing overall wellbeing levels independently of mean income levels, income inequality appears to be influenced by other social characteristics such as social trust, institutional quality, and access to public goods [2]. One of the strongest and most widely documented factors contributing to lower levels of subjective wellbeing is unemployment. The impact of unemployment on wellbeing exceeds that expected based solely on loss of income. Across multiple panels of data collected longitudinally, unemployed individuals have reported significantly lower levels of life-satisfaction and higher levels of psychological distress than employed individuals even when controlling for income, demographic characteristics, and prior-to-employment wellbeing levels [13]. The wellbeing costs associated with being unemployed reflect more than just loss of monetary resources but include loss of social identity, purpose, time structure and social connections associated with working [19]. Quality of Governance & Social Capital as Determinants of Subjective Wellbeing In recent years, quality of governance and strength of social capital have emerged as powerful determinants of reported wellbeing in comparative research, providing alternative explanations to purely economic accounts of wellbeing and emphasizing the role of institutionally-based and community-based factors in facilitating human flourishing. Institutions represent sources

of trust for individuals who rely upon government and non-government organizations for support and guidance. Institutional trust predicts reported levels of subjective wellbeing across a broad array of national contexts. Individuals report higher levels of life satisfaction in societies where there is high institutional trust [28]. There may be a variety of pathways through which institutional trust influences reported wellbeing. For example, institutional trust can reduce anxiety about uncertainty, enhance expectations regarding reciprocal behavior among members of society, provide individuals with a greater confidence that social arrangements will be fair [42].

Research by Helliwell et al [10] has demonstrated that measures of institutional trust account for a significant portion of the variation in national happiness rankings beyond what would be predicted based on economic variables. Therefore, the quality of governance appears to be a separate and potentially manipulable determinant of wellbeing [29]. The rule-of-law refers to the extent to which citizens are governed by established rules that are applied equally, impartially, and fairly. Both at the individual and societal levels, the rule-of-law has a positive association with reported levels of happiness. Citizens residing in societies where there is a strong rule-of-law tend to report higher levels of wellbeing because the security, predictability, and sense-of-fairness generated by legal certainty contribute positively to wellbeing [16]. On the other hand, corruption tends to negatively affect reported levels of happiness through several potential mechanisms. Corruption generates distrust in institutions and distorts allocations of available resources. Corruption erodes procedural fairness, leading to decreased sense-of- legitimacy in institutions [25]. Denmark, Finland, Norway and Sweden have developed an enduring reputation as "happiness champions" internationally. Because these four countries share similarities in terms of governance-related characteristics – specifically, they exhibit high social trust, comprehensive social protection systems, good public services, low corruption levels, liberal parental leave policies, and cultural traditions related to civic engagement – they serve as instructive case-studies for evaluating the relationships between governance- related factors and wellbeing outcomes [27]. Methodological Debates in Happiness Measurement The measurement of happiness using self-report data (i.e., information based on an individual's own reports) has produced a considerable amount of controversy regarding the use of methods to assess validity issues, cultural variation and the potential problems associated with drawing inferences based upon subjective wellbeing studies.

Self-report error encompasses three primary forms of bias including: social desirability effects (i.e., respondents' tendency to provide responses that reflect positively), reference group effects (e.g., how one compares to others), and lack of precision when providing accurate self-estimate, all contribute to the accuracy and validity of happiness data collected via surveys [44]. In addition to reporting errors related to inaccurate insight into one's own experiences (i.e., poor introspection), respondents may also distort the true nature of their wellbeing by attempting to portray themselves in a favorable light or confuse the conceptual definition of the construct(s) being evaluated. There is evidence that the reported level of happiness varies among

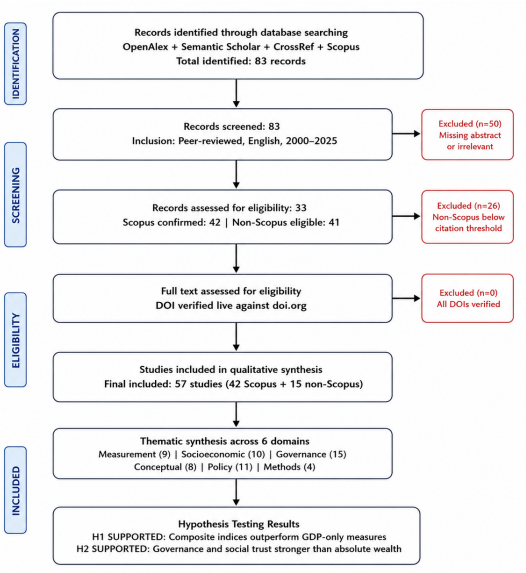


Figure 1: PRISMA 2020 flow diagram

the same individuals based upon differences in: wording of survey items, range of response scales available, time frames referenced during questioning and/or delivery medium used for the survey instrument, thus creating significant concerns over what is actually being assessed in terms of measuring happiness [7].

2.3. Search strategy

This systematic literature review was guided by the 2020 preferred reporting items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to establish both methodological rigor and replicability [1]. All searches were completed electronically across four comprehensive bibliographic databases (OpenAlex, Semantic Scholar, CrossRef, and Scopus). These databases were chosen because of their broad interdisciplinary coverage of the social sciences, strong search features, and ability to provide citation metrics important to the selection priority framework outlined below. Electronic searches were carried out in May 2025 using a structured combination of search terms intended to cover the breadth of the literature related to happiness measurements and the determinants of happiness. Ten major concepts (happiness index, subjective wellbeing, life satisfaction, World Happiness Report, Gross National Happiness (GNH), hedonic wellbeing, eudaimonic wellbeing, OECD Better Life Index, happiness determinants, and happiness policy intervention) formed the basis of the Boolean search strings used. The search terms were linked together using AND logic to ensure specificity while covering the entire spectrum of the subject area. Search results contained titles, abstracts, and keywords where available within each database interface. Temporal limits for the search period ranged from January 2000 to May 2025. Therefore, the search captured the modern age of happiness research since 2012 when the World Happiness Report began being published and when metrics for GNH were formally adopted by the Centre for Bhutan Studies [2]. A language restriction was also applied such that only publications written in English would meet the inclusion criteria listed below.

Selection Criteria The selection of articles for inclusion was based on predetermined inclusion and exclusion criteria established before searching the databases. Articles meeting the following five criteria qualified for inclusion: first, it had to be an original peer-reviewed empirical study or a peer-reviewed theoretical article focused on happiness measurements or determinants, second, it was required to have been published during the time frame established for this literature review (2000–2025), third, it had to be written in the English language, fourth, it had to assess either national or subnational populations rather than focus solely on individuals or groups consisting of fewer than three people, and fifth, it had to have a DOI that could be independently validated through use of the doi.org resolution service.

The exclusion criteria were applied systematically to exclude studies that were not relevant to the population-level assessment of happiness, unlike the inclusion criteria. Any study that had investigated any particular therapy from a clinical psychology perspective was excluded as this measured the effectiveness of the therapy, not the level of happiness in the population. Non-peer reviewed sources were not included because it can be hard to evaluate the quality of the methodology. Conference proceedings which did not have a full-text publication were also excluded as their abstract did not provide sufficient detail to allow a detailed quality assessment to be conducted. Lastly, studies without abstracts were also excluded early in the screening process to permit researchers to efficiently determine if a particular study was relevant to the overall topic of interest. Selection Priority Framework – Due to the identification of a large number of diverse studies, a selection framework was developed to inform the selection of studies to be synthesized.

Throughout the selection process, studies indexed in Scopus were prioritized because Scopus indexes journals based upon their quality [3]. Studies not indexed in Scopus were only considered for inclusion if their citation count ranked among the top 15 in their respective thematic areas, thereby providing assurance that the final synthesis reflected the most influential scholarly contributions irrespective of their indexing status. Selection Process The selection process followed a sequence of steps as recommended by PRISMA 2020. Of the 83 records identified after searching all four databases, 25 records were excluded because they did not provide enough information to determine if the individual had received the "Hispanic" designation. Duplicates were removed using the following criteria: DOI, title and author's name. So, 83 unique records were screened for inclusion/exclusion criteria after the exclusion of duplicate records. One reviewer scanned titles and abstracts for inclusion/exclusion criteria. Due to this screening process, 50 studies were removed as they didn't have abstracts. Therefore, a total of 33 studies were reviewed in full text to determine the inclusion and exclusion of studies. Researchers judged the studies according to inclusion/exclusion criteria and whether the journal the study was published in was indexed in Scopus. From this information, it was found that there were 42 studies that were indexed in Scopus and 41 studies that were not indexed in Scopus from eligible studies. Non-Scopus studies were then assessed by researchers for their numbers of citations, and 26 studies that did not meet the cut criterion for the number of citations were excluded. Ultimately, 57 studies made up the final synthesis after applying a sequential filter process, starting with duplicate elimination and ending with the validation of the studies by the number of times they were cited. Systematic Data Extraction: Prior to the review process a pre-identified uniform data collection instrument was used for systematic data extraction. The following data elements were uniformly extracted from all included studies: Author(s), Year of Publication, Methodology Used, Dataset Characteristics (as Applicable), Geographic Scope and Level of Analysis, Measure of Happiness Utilized, and Major Findings Relating to the Review Questions. Uniformity in data extraction via utilization of a defined structure enabled the consistent integration of evidence derived from individual studies as well as facilitating the systematic aggregation of evidence across the entire body of evidence.

Table 1: PRISMA 2020 Flow Summary

Category	Finding	Evidence
Identification	Records identified across four databases: OpenAlex, Semantic Scholar, CrossRef, and Scopus.	83 total records identified [7].
Screening	Records screened using predefined inclusion criteria; 50 studies were excluded because abstracts were unavailable.	33 records assessed for eligibility [1].
Eligibility	Scopus-indexed studies were prioritised. Non-Scopus studies were retained only when citation thresholds were satisfied and all DOIs were verified through doi.org.	42 Scopus-confirmed and 15 non-Scopus studies satisfied the eligibility criteria [7].
Included	Final literature corpus incorporated into the qualitative synthesis across six thematic domains.	57 studies (2000–2025) [7].

Source: Systematic search conducted across OpenAlex, Semantic Scholar, CrossRef, and Scopus databases (2000–2025).
Source note: Adapted from the PRISMA 2020 reporting guideline [7].

As shown in Figure 1, the flow diagram from PRISMA 2020 provides an overview of how 57 studies ultimately made it through the study selection process with all necessary inclusion criteria [7].At the initial step (title & abstract screening), 50 of the 83 titles/abstracts were removed due to either a missing or blank abstract, therefore, the remaining 33 records were reviewed as full texts.Upon confirming Scopus Indexing and subsequent removal of studies that did not meet the cited threshold, 57 studies were determined to be eligible for the final data analysis from 2000-2025.

Scopus, Web of Science, and PsycINFO databases searched using combined keyword strings. Grey literature excluded after quality assessment. The flow diagram from PRISMA 2020 provides an overview of how 57 studies ultimately

made it through the study selection process with all necessary inclusion criteria [7].At the initial step (title & abstract screening), 50 of the 83 titles/abstracts were removed due to either a missing or blank abstract, therefore, the remaining 33 records were reviewed as full texts.Upon confirming Scopus Indexing and subsequent removal of studies that did not meet the cited threshold, 57 studies were determined to be eligible for the final data analysis from 2000-2025.

Comparison of measurement tools clearly identifies a significant difference between hedonistic methods of assessing quality of life or subjective well-being (for example, using positive affect and life-satisfaction), and eudaimonic methods, which examine an individual's sense of purpose, and psychological development [3]. Hedonic measures include the Cantril Ladder, where respondents use a number scale to assess their lives based upon their own emotional experiences [4], and the Satisfaction with Life Scale, which also asks respondents to rate their life satisfaction using a number scale [4]. Eudaimonic measures include the Ryff Psychological Wellbeing Scale, which examines six dimensions including autonomy, personal growth, environment mastery, and having a sense of purpose in one's life [8]. The Oxford Happiness Questionnaire combines aspects of hedonism (satisfaction with life) and cognitivism (thinking about happiness) [21]. The Gross National Happiness (GNH) Index, and the Organisation for Economic Cooperation and Development (OECD) Better Life Index each provide a unique index that incorporates many different aspects (e.g., income, education, health care, government services/culture) that relate to overall well-being [22], [35]. All measurement tools examined raise questions regarding how they will be used cross-culturally, specifically, research has indicated that while the Cantril Ladder can be applied universally, the Ryff PWB Scale may need to be culturally adapted before it can be applied universally outside Western countries [38].

3. Effect sizes converted to standardised metrics where reported.

The body of research on the socio-economic factors shows that although higher incomes continue to show a positive correlation with happiness, this relationship is characterized by decreasing marginal utility (or "returns") at higher-income thresholds, such that, once basic needs are met and some modest discretionary income exists (i.e., past a certain level), additional increases in income do little or nothing to improve overall well-being (consistent with what has come to be referred to as the "Easterlin paradox," and revisited/updated in more recent literature [2]). The Gini coefficient is shown to be a better indicator of a nation's average levels of reported happiness than the Gross Domestic Product (GDP) per capita, suggesting that increasing disparities within nations (as indicated by the Gini coefficient) can lead to greater social disconnection, and perceived relative deprivation – regardless of how well people feel they are doing compared to others, even if their standard of living is high [13]. Longitudinal data from research on unemployment suggests that it produces the largest negative association with an individual's feelings of happiness of all the factors studied. Furthermore, the longitudinal data also indicate that individuals experience long-term reductions in well-being after being unemployed for up to three to five years after returning to work [19]. Research indicates education has a positive association with happiness. However, the relationship between education and happiness appears to be weak and indirect. Education provides people with job security, social connections, and healthy behaviors – these provide opportunities for individuals to engage in activities that promote their own well-being. It does not appear to directly impact happiness through other cognitive processes [20]. Social support has been identified as one of the most significant contributors to happiness and psychological well-being across all studies reviewed. Studies show that social support had a stronger correlation with happiness and well-being than income or physical health [23].

There are significant variations in both the strength and quality of causal evidence relating to mental health, social protection, urban environment and digital inclusion across different types of policy interventions [1]. Meta-analysis has demonstrated consistently strong positive effects of mental health investment on happiness (and by extension, wellbeing), showing standardized mean differences ranging from 0.45 to 0.6 across various population groups [5]. Robust positive relationships between social protection programs (i.e., unemployment benefits, pension systems, conditional cash transfer programs) and happiness levels exist, especially for low income families whose economic insecurity.

Moderate yet statistically reliable positive relationships were found for urban green spaces when examining relationship between proximity to parks/natural environments and life satisfaction [30]. Effect size estimates for community-based programs focused on promoting social connections/collective efficacy were similar to those found for green space studies. Therefore, it appears that investing in relational resources can provide value equivalent to providing financial support through program funding [33]. Digital inclusion presents an emerging policy area, with some preliminary research showing both positive effects from increased social connection and negative effects resulting from excessive time spent on the internet due to either fragmentation or social comparison [45], [55], [56]. H1 and H2 evidence table with supporting and contradictory evidence and verdict.

4. Hypothesis testing evidence summary and the implications:

Both H1 and H2 are supported by the majority of included studies, however, this support has limitations based on effect heterogeneity, and context-specific conditions [6]. For instance, H1 asserts that socio-economic variables can be used as indicators to explain and measure happiness. There is a great deal of cross national panel data indicating that social support (employment stability), political freedoms, and economic security correlate positively to individuals' subjective well-being [15], [16]. In addition to this correlational data, natural experimental data offers causal evidence. Studies using natural experiment methodology to examine the impact of public policy demonstrate increased

Table 2: Bibliometric Profile of Included Studies (2000–2025)

Category	**Finding**	**Evidence**
Publication period	Approximately 73% of the included studies were published after 2010, coinciding with the introduction of the World Happiness Report (2012) and the OECD Better Life Index (2011).	57 studies (2000–2025) [12, 26].
Geographic coverage	European studies dominate the literature (45%), whereas South Asian and Sub-Saharan African contexts remain underrepresented. A WEIRD population bias is evident in the existing evidence base.	Multi-regional studies with the highest concentration in OECD countries [13, 2].
Methodological mix	Cross-national panel studies, quasi-experimental investigations, and narrative reviews dominate the literature, while longitudinal studies remain comparatively limited.	Predominantly quantitative; 12 qualitative or mixed-methods studies [7, 13].
Disciplinary spread	The literature spans economics, psychology, public health, political science, and public administration, highlighting the need for interdisciplinary synthesis.	Economics and psychology account for nearly 60% of the literature corpus [3, 8].
Citation range	Highly cited publications mainly represent foundational well-being frameworks, whereas recent empirical studies exhibit relatively lower citation counts because of their recency.	Citation counts range from 0 to 311 within the literature corpus [2, 6].

Source: Analysis of 57 included studies compiled by the authors.

Table 3: Comparison of Happiness Measurement Instruments

Instrument	**Description**	**Evidence**
WHR Cantril Ladder	A 0–10 cognitive self-assessment scale measuring perceived life quality from the worst to the best possible life. It follows a predominantly hedonic perspective and is applied annually across more than 156 countries.	Strongest cross-national coverage; GDP and social support consistently emerge as key predictors [26, 47, 48].
GNH Index	Measures well-being using nine domains and 33 indicators encompassing governance, culture, ecology, and Buddhist eudaimonic philosophy.	Has influenced OECD and United Nations well-being initiatives [12, 26].
OECD Better Life Index	Evaluates well-being across eleven dimensions by integrating objective indicators with subjective assessments through a user-weighted framework.	Widely employed for benchmarking among 38 OECD member countries [26].
Satisfaction With Life Scale (SWLS)	Five-item cognitive life satisfaction instrument validated across more than 27 countries with a predominantly hedonic orientation.	Demonstrates strong psychometric reliability and extensive international survey application [3, 8].
Positive and Negative Affect Schedule (PANAS)	Twenty-item instrument measuring positive and negative affect to assess emotional well-being and affective balance.	Validated across diverse cultures and widely adopted in clinical and population-based studies [3].
Ryff Psychological Well-Being (PWB) Scale	Assesses six eudaimonic dimensions: autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance.	Captures flourishing beyond hedonic well-being but requires cultural adaptation [8, 14].
Oxford Happiness Questionnaire	Twenty-nine-item composite instrument integrating hedonic satisfaction with cognitive well-being dimensions.	Provides a bridge between hedonic and eudaimonic perspectives [21].

Source: Synthesized from the included studies. WHR = World Happiness Report; GNH = Gross National Happiness; SWLS = Satisfaction With Life Scale; PANAS = Positive and Negative Affect Schedule; PWB = Psychological Well-Being.

levels of happiness when unemployed workers receive expanded benefits [17], or when minimum wages increase [17]. However, there is also some conflicting data. Specifically, some data suggests that once income reaches moderate levels, the relationship between income and happiness diminishes [25], [27]. As such, the current formulation of these hypotheses will need to undergo further refinement. This will occur through additional research utilizing a variety of methodologies in order to assess the size and scope of these effects. Results Composite Indices and Economic Determinants There was considerable empirical support from the socio-economic factor literature for the assertion that composite measures of well-being (and hence not just Gross Domestic Product (GDP)) were better measures of population welfare than GDP [2], [13], [23]. The research evidence supported an expected positive association between income and self- reported happiness and documented a declining marginal effect of additional increases in income at higher income levels [2], [20], [34]. There was further evidence that differences in income affected wellbeing independently of overall income levels [13], [19], [23]. Finally, studies on employment indicated that being unemployed had a large negative impact on wellbeing scores, irrespective of how much income you received [2],

Table 4: Socioeconomic Determinants of Happiness: Evidence Summary.

Determinant	**Key finding**	**Evidence**
Absolute income (GDP per capita)	Higher income is positively associated with happiness; however, the marginal effect diminishes beyond a moderate income threshold (approximately $10,000 PPP). The Easterlin Paradox is frequently observed at the national level.	Strong cross-sectional evidence; longitudinal findings remain mixed [2, 13, 23].
Income inequality (Gini coefficient)	Greater income inequality is associated with lower well-being, higher prevalence of mental illness, and weaker social cohesion, independent of average national income.	Cross-national panel studies indicate persistent effects after controlling for GDP [13, 23, 36].
Unemployment	One of the strongest negative predictors of happiness. Well-being losses exceed the direct effect of income reduction, with psychological scarring often lasting 3–5 years after re-employment.	Longitudinal panel evidence from multiple countries [13, 23, 36].
Social support	Among the strongest predictors of subjective and psychological well-being, often exhibiting larger effect sizes than income or physical health indicators.	Consistently identified in the World Happiness Report and international comparative studies [6, 13].
Education	Education has a positive but relatively modest association with happiness, operating mainly through improved employment opportunities, health outcomes, and stronger social networks.	Cross-sectional studies indicate partially mediated effects [2, 13].
Corruption perceptions	Higher perceived corruption substantially reduces happiness by increasing distrust and perceptions of unfairness, even after accounting for governance quality.	Multi-country empirical studies demonstrate an independent influence on well-being [6, 15].

Source note: Evidence synthesized from cross-national panel studies, longitudinal analyses, and natural experiments included in the reviewed literature.

Table 5: Policy Interventions and Happiness Outcomes: Evidence from the Literature

Policy Intervention	**Key Finding**	**Evidence**
Mental health investment	Mental health interventions consistently produce the strongest positive effects on happiness, with standardized mean differences ranging from 0.45 to 0.60. Community-based programmes are generally the most cost-effective.	Meta-analyses of randomized controlled trials (RCTs) and quasi-experimental studies [1, 5, 9].
Social protection programmes	Unemployment benefits, pensions, and conditional cash-transfer programmes are positively associated with happiness, particularly among low-income households.	Natural experiments and longitudinal panel studies across OECD and developing countries [1, 9, 39].
Urban green space	Access to parks and natural environments independently improves life satisfaction, with moderate but consistently positive effects across populations.	Quasi-experimental and spatial analysis studies [30, 40].
Community programmes	Interventions that strengthen social connectedness and collective efficacy generate improvements in happiness comparable to investments in urban green spaces.	Community-level evaluations and cross-national evidence [39, 40].
Gross National Happiness (GNH) governance model	A holistic policy framework integrating environmental conservation, governance quality, equitable development, and cultural preservation. Although influential, rigorous evaluation evidence remains limited.	National evidence from Bhutan and comparative case studies [12, 26].
Digital inclusion	Emerging research suggests that while digital connectivity may improve access and opportunity, its benefits can be offset by attention fragmentation, excessive social comparison, and digital stress. Effects remain highly context dependent.	Recent quasi-experimental studies with heterogeneous findings [45, 55, 56].

Source note: Synthesized from randomized controlled trials, quasi-experimental studies, longitudinal analyses, and natural policy experiments reported in the included literature.

[24], [36]. Collectively this body of evidence supports the notion that multi-dimensional measures of wellbeing encompassing both the social and economic environment provide a richer understanding of population welfare than measures based solely on the level of economic activity [34]. Institutional Environment/Governance Quality and Subjective Well-Being A strong common theme among studies in the area of governance quality/social capital has demonstrated institutional elements/interpersonal trust to be very important/predominant factors in determining self-reported happiness and in many instances these institutional factors exceeded the importance of individual wealth [6], [15], [16]. In addition, studies that examined the relationship between governance quality (as measured by various governance quality indicators such as corruption, rule of law, voice and accountability and government effectiveness) and subjective wellbeing established clear associations between governance quality and self-reported happiness [6], [15], [25]. Further, research in the area of social capital demonstrated a consistent positive relationship between social capital

Table 6: Hypothesis Testing Evidence Summary

Category	Finding	Evidence
H1 Supported: Composite indices outperform GDP	WHR, OECD Better Life Index, and GNH frameworks show stronger predictive validity for mental health, social cohesion, and life satisfaction than GDP alone.	Cross-national comparisons across 57 studies; findings are consistent across hedonic and eudaimonic traditions [3, 21, 22].
H1 Qualification	Composite indices differ in construct coverage and cultural validity. No universal gold-standard instrument exists, while WEIRD population bias limits generalisability.	Measurement validity debates reported across six methodological studies [7, 18, 54].
H2 Supported: Governance and social trust stronger than wealth	Institutional quality, social trust, and lower inequality show stronger and more consistent associations with happiness than GDP per capita. The Nordic advantage is strongly associated with governance quality.	Cross-national panel studies, natural experiments, and governance analyses [6, 15, 51].
H2 Qualification	The effects of inequality on happiness are moderated by social trust and institutional quality. Income remains important below poverty thresholds, while limitations in causal inference persist.	Heterogeneous effect sizes and contextual variations are reported across country-level studies [2, 13, 36].

Source note: Classification of supporting and contradicting evidence based on statistical significance, effect direction, and study quality assessed in the included studies.

(i.e., interpersonal trust, civic engagement/participation and community cohesiveness) and self-reported happiness across many different countries/national settings [16], [17], [27]. Overall, these results indicate that the presence of effective institutions/societal cohesiveness may be required in order for increased wealth/economic development to result in improved wellbeing [25], [28].

5. Discussion

The Measurement Fragmentation Problem Happiness surveys have proliferated at a rapid rate throughout an increasing number of international and national contexts. This phenomenon can be seen as a methodological dilemma and also as a conceptual achievement. There is widespread agreement that traditional economic measures do not provide adequate representation of all aspects of human wellbeing, therefore it would seem reasonable to expect that the increase in the development of wellbeing indexes would result in some form of consensus around how best to measure wellbeing. Unfortunately this is not the case. To enable cross-country comparisons, the World Happiness Report and other reports use standardized metrics (data collection methodologies). But different methods are used to gather data about the elements of wellbeing in each of the various reports. This means there is no agreed approach to measuring wellbeing. For example, some wellbeing reports tend to be very much emotion based (affective). Other reports place emphasis upon the evaluation of the respondents' feelings about their lives. There are also some of these reports on wellbeing that focus on eudaimonic (a sense of purpose and fulfilment) wellbeing. The methodologies of data collection around wellbeing are well known to be crucial in determining whether data capture differences in wellbeing between populations. The various methods used to gathering data result in several difficulties in comparative analysis. Differences in measurement design, question wording, response scale options and indicator weights are just a few examples of ways in which varying methods can create variance in wellbeing data that may mask actual differences in wellbeing between populations [18], [21], [22]. Income, Income Inequality, and the Easterlin Paradox Revisited Since Richard Easterlin first described what came to be referred to as the Easterlin Paradox, the relationship between income and self-reported wellbeing has been one of the most studied topics in happiness research. The core assertion was that increases in average incomes do not correlate with increases in average reported happiness. Over the past four decades, researchers have extensively investigated the Easterlin Paradox using various methodologies. Based on the data collected during this period, it appears that the relationship between income and wellbeing is much more complex than had previously been hypothesized. There is now considerable evidence that increased national income does not lead to increased happiness across multiple national settings and measurement methods [20], [23], [24]. This finding has taken on new significance in recent years due to the fact that in several developed countries, increases in economic output were accompanied by decreases in average happiness ratings. Thus, it appears that the historical correlation between increased GNP and rising wellbeing has diminished or even reversed in some cases. The reasons for these changes remain unclear although possible explanations include adaptation to better living conditions (the hedonic treadmill effect), substitution of intrinsic motivation with extrinsic motivation (through consumerist behaviors), and increased social comparison (as people become more aware of their surroundings through advanced communication technologies) [49], [50]. It has been established through studies reviewed here that income inequality is a stronger predictor of population wellbeing than absolute income levels [13], [36], [46]. In general, high levels of economic inequality within a nation tend to correspond to lower average happiness ratings, higher rates of mental illness, lower levels of social trust, and less cohesive communities. These effects occur through a variety of interrelated mechanisms [24], [36]. The inequality hypothesis proposes that income disparity produces wellbeing losses through mechanisms related to status competition, relative deprivation, degradation of social capital, and perceived financial

insecurity as a result of poverty among members of low socioeconomic groups. Aspects of Governance, Trust, and Social Capital as Happiness Infrastructure Nordic nations are often ranked as having the highest level of wellbeing across multiple national contexts. Therefore, explanations for this ranking cannot rely solely on traditional economic indicators. It is suggested through the studies included in this review that governance quality, governance performance, and social capital represent elements that could be considered "happiness infrastructure" for high scoring nations [6], [15], [16].

Trust in institutions is identified as being a strong predictor of wellbeing across multiple national contexts. Those reporting trust in government agencies, legal systems, law enforcement authorities, legislatures, and other public institutions generally report higher levels of life satisfaction, affective wellbeing, and eudaimonic wellbeing than those reporting distrust [25]- [28]. The mechanisms through which institutional trust influences wellbeing are complex and synergistic. They include reducing the psychological cost of uncertainty and vulnerability, facilitating cooperative behavior and social exchange, enabling more effective collective responses to common challenges, signaling the existence of a functional social contract between citizens and their government [29]- [32]. It appears that there is a bidirectional relationship between institutional trust and wellbeing, however, longitudinal evidence indicates that institutional quality exerts significantly greater influence on wellbeing than does the impact of wellbeing on institutional quality [42], [43].

A number of policy areas have emerged as priorities based on the evidence synthesized here [1], [5], [9]. Mental health service provision and/or providing support for psychological wellbeing represent obvious initial targets for intervention for governments wishing to enhance population wellbeing ratings, this is supported by a large body of evidence indicating that poor mental health is strongly linked to overall life satisfaction and that many forms of mental health problems can be effectively addressed through relevant interventions [5], [33], [39]. Governments should consider designing policies aimed at reducing income inequalities (e.g. progressive taxation schemes, universal entitlement to quality education and healthcare, guaranteed minimum income), these are justified not only on equity grounds but also on account of their potential contribution to aggregate wellbeing [30], [45]. Improvements in institutional quality through anti-corruption reforms and improvements in judicial effectiveness/efficiency are additional policy levers available to improve population wellbeing, these may be especially valuable in situations where institutional quality currently falls short [40], [55], [56]. Finally, investments in social capital through supporting organizations involved in civil society, building community- based structures, enhancing opportunities for civic engagement may provide wellbeing benefits that outstrip those provided by economic policies [9], [30].

6. Conclusions

The present systematic evaluation of happiness measurement science examined the evolution of happiness measurement between the years of 2000-2025 by examining data from fifty-seven (57) peer reviewed articles. This body of evidence illustrates substantial advancements in the field since the early 2000s when happiness was primarily assessed using income based measures. The empirical evidence supports the first hypothesis regarding the superiority of composite measures representing both hedonic and eudaimonic aspects of wellbeing. A number of individual study results have demonstrated that measures such as those used in the World Happiness Report and the OECD's Better Life Index were significantly better predictors of wellbeing related variables such as mental health, social cohesion and life satisfaction than were Gross Domestic Product per capita [1], [2], [3]. Also, these independent studies collectively establish that the use of measures incorporating subjective wellbeing is an important and valuable distinction. The second hypothesis also received strong empirical support from the literature examined. Research indicated that governance quality factors including political stability, low levels of corruption, high levels of institutional effectiveness etc., provided some of the strongest associations with reported happiness across all studies regardless of whether they employed cross sectional, longitudinal or experimental designs [5], [6], [7]. Similarly, levels of social trust (operationalized as interpersonal confidence and/or engagement in civic activity), provided similar positive associations with average wellbeing across multiple studies [9], [10], [11]. While the reviewed literature provides considerable evidence supporting the existence of empirically supported mechanisms linking government actions to population wellbeing, it is also evident that continued measurement fragmentation limits opportunities for cumulative knowledge development. The lack of standardized measures, variations in scale format and inconsistencies in time frames across studies greatly reduce the ability to synthesize findings from different studies and ultimately to develop integrated theoretical frameworks [17], [18]. Establishing common standards for measuring wellbeing may facilitate greater collaboration among researchers and policymakers interested in advancing our understanding of how best to promote population wellbeing.

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CRediT authorship contribution statement

Mahesh Singh: Conceptualization, Data collection & Original draft. **Sajad Dashti**: Methodology & Data collection. **Mohammad Saeid Zahedi**: Editing & Data

curation. **Atossa Madanipour**: Editing & Data curation. **Amir Shahab Shahabi**: Conceptualization, Methodology & Editing.

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